

NOTES ON SOME AUSTRALIAN *TENEBRIONIDAE*, WITH
 DESCRIPTIONS OF NEW SPECIES;—ALSO OF A NEW
 GENUS AND SPECIES OF *BUPRESTIDAE*.

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(With fourteen text-figures.)

Family BUPRESTIDAE.

CYRIOIDES, n. gen. Chrysochroinorum (Text-fig. 1).

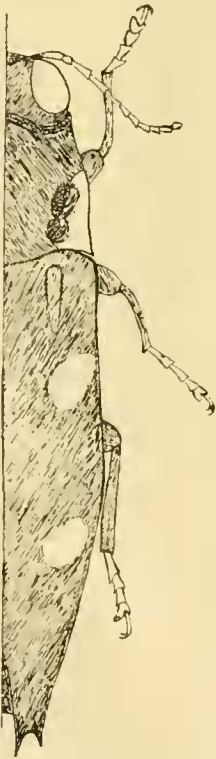
Near *Cyria*, but differs from that genus in the following particulars. Anterior margin of prosternum straight, without medial notch or lobe; prosternum furrowed in middle, narrowed and rounded at apex to fit into mesosternal excision. *Antennae*.—1st joint long, bent and thickened at apex, 2nd shortly obovate, 3rd longer than 4th, but considerably shorter than 1st; 4th-8th subequal, elongate subtriangular and flattened, 11th elongate ovoid.

Posterior tarsi with 1st joint not as long as the two following combined; last abdominal segment of ♂ with wide triangular excision at apex between two rounded lobes; of ♀ round and subacuminate.

Following Kerreman's table of the tribe in the "Genera Insectorum," *Cyrioides* is separated from all other described genera, except *Cyria* and *Epistomentis* by having its antennal cavities small and rounded. From *Epistomentis* it differs in having the 3rd antennal joint decidedly shorter than the 1st; the strongly bisinuate front of prothorax; the proportions of the hind tarsal joints; and the abdomen not carinated in any part.

CYRIOIDES SEX-SPILOTA, n. sp. (Text-fig. 1.)

Navigular, rather flat, smooth; nitid black above with the posterior sides of pronotum sanguineous and each elytron with 3 yellow spots, the first small, posthumeral (not seen from above), the second large and ovate, opposite lateral tooth and nearer sides than suture, the third of same size and form as the second on posterior third. Legs and underside with long white hair, the smooth parts nitid black with metallic reflections. *Head* carinated in front, furrowed on vertex, with large sparse punctures. *Prothorax* $5 \times 4\frac{1}{2}$ mm., widest at base, bisinuate at base and apex—more strongly so at apex—the median lobe of this produced forward; scarcely (in ♂) or not (in ♀) excised, anterior angles acute (as seen from above), sides very little



Text-fig. 1.
Cyrioides sex-spilota,
 n. sp.

rounded in middle and sinuate behind, base with medial lobe subangulate, posterior angles widely acute (about 80°); disc with medial furrow strongly impressed, terminating in a wide depression near base, sparsely punctate with large and deep geminate foveae near posterior sides. *Scutellum* invisible from above. *Elytra* slightly wider than prothorax at base, and thrice as long, gently sinuate at sides and slightly widened behind middle, thence narrowed to apex—each apex strongly bidentate, the interior tooth longer; posterior sides entire; disc striate-punctate, the punctures large on basal third, thence smaller and almost evanescent at apex; prosternum and apical segment of abdomen coarsely, the rest of underside finely and sparsely punctate; fore-tibiae curved. *Dimensions*: ♂. 18×6 , ♀. 21×7 mm.

Hab.—Johnstone River, Queensland (Mr. H. W. Brown.)

A pair of this fine species, sent for identification from the South Australian Museum, are the only examples I have seen.

Types in the South Australian Museum.

STIGMODERA AENEICORNIS Saund.

Specimens from N.W. Victoria (Hattah, Sea Lake, etc.), are so labelled in the National Museum, Melbourne, and exactly correspond with the description and figure. The name is of no value for purposes of identification.

Family TENEBRIONIDAE.

Through the helpful co-operation of Mr. K. G. Blair, of the British Museum, and by the specimens compared with type, sent for inspection, I am now able to correct mistakes of identification and to indicate further synonymy. Mr. Blair's notes have further led me to a close re-examination of the species belonging to the closely allied genera *Daedrosia*, *Licinoma*, *Brycopia* and their allies, and this necessitates a considerable modification of the tabulations published by me.*

CAEDIUS. *C. sphaeroides* Hope = *C. tuberculatus* Cart.

This beach-dweller is found on both the East and West coasts of Australia. I was misled by a comparison between fresh and abraded specimens.

HYOCIS. The species of this genus, though commonly found at the roots of maritime plants on the sandy sea beaches, are not so restricted. Thus I have received *H. pallida* Mael. from Narromine, N.S.W., and have taken *H. pubescens* Mael. (described, like the former, from Gayndah) in my garden at Darling Point. *H. bicolor* Cart., originally from Botany, I found again at Burnie, Tasmania. The species vary much in colour and pattern, and while pointing out at least two synonyms, it is probable that a further reduction in the number of names may be desirable.

H. bakewelli Pasc. = *H. occidentalis* Blackb. var.

H. sub-parallela Champ. = *H. variegata* Blackb. var.

Regarding the first of these it is evident that Champion's notes† refer to *occidentalis* Blackb. which varies much in colour and markings, but is inseparable in form from concolorous examples that are found from Victoria to Albany. Re *sub-parallela* Champ., Mr. Blair writes "at my request he [Mr. Champion] "has looked at the type and finds it identical with *variegata* Blackb. except that in the latter the pale spots are a little more extensive. The other form is completely dark, with the elytra curiously irregular." A new species is described below.

*Trans. Roy. Soc. S. Aus., xxxviii., 1914, p.388-391.

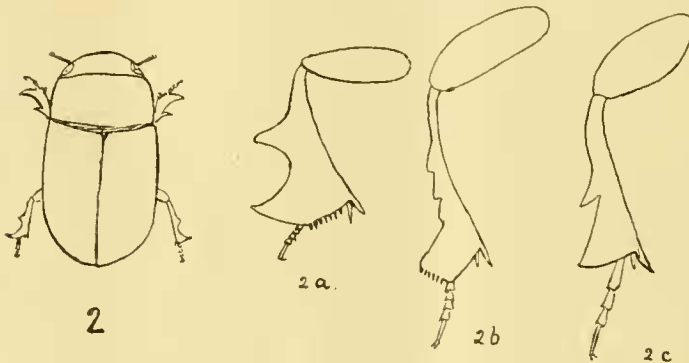
†Trans. Ent. Soc. Lond., 1894, p.363.

Phaennis fasciculata Champ. The female only of this species was described. I have lately seen a male example from Zeehan, Tasmania [Simson Coll., South Australian Museum] and I possess another taken by Dr. Ferguson in the Blue Mountains, N.S.W. The head has pronounced sexual characters as follows:

♂. Head with three prominent horns; one, sharply conical, on centre of forehead, pointing obliquely backwards, and one on each side of head, triangular, forming a projection over the points of insertion of the antennae.

ANEMIA CAULOBIOIDES, n.sp. (Text-fig. 2.)

Short, rather squarely ovate, black, pronotum sub-opaque, elytra rather nitid, upper surface sparsely clothed at sides with upright reddish hair. *Head* wide, labrum evident, epistoma with circular excision in front, without defined sulcus behind, and rounded in a single curve from the apical excision to behind the eyes; apical joints of palpi subulate, eyes large, almost completely divided by a narrow canthus; closely punctate; antennae short, joints trapezoidal, gradually enlarging to the 10th; apical narrower than preceding and widely ovate. *Prothorax* widely transverse, truncate at apex and base, slightly narrowed at the former, sides rounded, all angles obtuse, densely and finely punctate, without medial line or foveae. *Scutellum* triangular. *Elytra* convex laterally, of same width as pro-



Text-fig. 2.

Anemia caulobioides, n.sp. 2a, front leg; 2b, mid leg; 2c, hind leg.

thorax at base, sides parallel, without evident margin, the whole finely punctate, with some transverse striae; the punctures larger and less dense than on pronotum. Epipleurae narrow, body winged, metasternum coarsely punctate, tibiae dentate on outside margin, spinose and pectinate at the enlarged apex; tarsi with a few spiny bristles, claws very fine. *Dimensions*: 5—6 × 2½—3 mm.

Hab.—W.A.: Swan River and Geraldton (J. Clark), Yallingup. (R. E. Turner, in British Museum).

Twenty specimens examined of this scarab-like Tenebrionid, sent to me, as also to the South Australian Museum, by Mr. Clark. I had already described this as a new genus and species, but a timely note from Mr. Blair, to whom I had sent a specimen, brought an additional example taken by Dr. Turner, with the information "*Anemia* sp.(prob)n., near *A. sardoa* Gén  and *A. denticulata* Woll; but differs from both in having thorax much more finely and closely punctate. From *A. sardoa* it differs also in its shorter, more squat shape." The

genus *Anemia* is widely distributed in S. Europe, Asia (Syria to India), Africa (widely) and America (California). The above record is the first for Australia. It is found in sandy beaches or sandy soil.

Type in the Coll. Carter.

HYOCIS MINOR, n.sp.

Shortly ovate, convex, opaque brownish black, elytra with some undefined reddish markings, chiefly in humeral region, antennae and legs red. *Head* coarsely punctate, antennae stout, joints 9 and 10 transverse, 11th oblong oval. *Prothorax* emarginate at apex, front angles rounded but prominent, sides rounded, slightly sinuate behind, posterior angles rectangular, base bisinuate, disc coarsely and closely punctate, very sparsely pilose towards sides, with well marked medial sulcus. *Elytra* wider than prothorax at base, oval and convex, deeply punctate-striate, the punctures moderately large and round, more widely separated than usual in the genus, underside more finely punctured than upper surface. *Dimensions*: $2-2\frac{1}{2} \times 1\frac{1}{2}$ mm.

Hab.—Stradbroke Island, Queensland (Mr. Pottinger and H. J. Carter); Sydney (Dr. E. W. Ferguson).

Six examples taken on the sea-beach near Dunwich (Stradbroke Is.), seem inseparable from the Sydney specimen, which has long been in my collection as a probable sp. nov. It shares with *H. nigra* Blackb. the distinction of being consistently smaller than the other described species, while distinguished from *nigra* by its more convex and wider form and rounded sides of prothorax. *H. bakerwelli* Pase. is larger and has much coarser elytral sculpture with cancellate ridges between the square seriate punctures, and with more angulate humeri.

Type in Coll. Carter.

ALPHITOBIOUS BLAIRI, n.sp.

Sub-parallel, depressed, piceous above (elytra nearly black), underside, legs and antennae castaneous. *Head* closely punctate, eyes rather large, antennal orbit not prominent, antennae submoniliform, slightly and successively widened outwards, not extending to base of prothorax. *Prothorax*: apex truncate (as seen from above), base bisinuate, anterior angles rounded, posterior angles sub-rectangular, widest at base, sides arcuately narrowing to the front; disc closely, not very finely punctate, with two small basal foveae. *Elytra* of same width at base and about two and a-half times as long as the prothorax; finely striate-punctate, intervals flat and minutely punctate; underside closely punctate, the prosternum coarsely, abdomen more finely so, tibiae very little enlarged at apex, their margins entire. *Dimensions*: $3\frac{1}{2} \times 1\frac{1}{3}$ (approx.) mm.

Hab.—Townsville, Queensland (F. P. Dodd).

Two specimens were sent from the British Museum, labelled as above, of a species that is difficult to place; and which I was inclined to think was a *Ulomoides*, but the shorter body and antennae, more transverse prothorax preclude this.

Type in British Museum.

ALPHITOBIOUS XAMIAPHILA, n.sp.

Elongate-ovate, sub-nitid; head, prothorax, underside and appendages red, the first often blackish; elytra piceous, more or less suffused with red, tarsi luteous. *Head* coarsely and confluent punctate, eyes large, prominent and coarsely faceted,

epistomal suture arcuate and well-impressed; antennae extending nearly to half the length of prothorax; basal joints sub-cylindric—3rd slightly longer than 4th; gradually enlarging from 5th to 8th; 8th—10th wider than long, 11th largest, ovoid. *Prothorax* strongly transverse, truncate at apex, feebly bisinuate at base, sides evenly rounded, all angles obtuse, disc closely and coarsely punctate, without medial line, two large, shallow, foveate depressions near base. *Scutellum* large, curvilinear triangular. *Elytra* wider than prothorax at base and about 3 times as long, sub-parallel (or feebly ovate) moderately convex (narrow border not evident from above), striate-punctate, intervals lightly convex on disc, more markedly so at sides; seriate punctures large; intervals thickly punctate (giving semi-opaque appearance to surface). Underside coarsely, metasternum more sparsely punctate. Prosternum narrowly compressed between coxae, the apex produced backwards forming an ellipse, fitting an arcuate triangular depression in mesosternum, metasternum channelled; middle and post intercoxal processes arcuate; legs clothed with longish yellow hair; tibiae with short spine at apex, posterior tarsi with claw-joint nearly as long as the rest combined. *Dimensions*: $4 \times 1\frac{1}{2}$ —2 mm.

Hab.—N. Territory: Stapleton (Mr. G. F. Hill); also British Museum: in both cases taken in ♂ flowers of *Zamia*.

Five specimens from Mr. Hill, and two sent from the British Museum show a species that I place with much diffidence under *Alphitobius*.

Type in Coll. Carter.

PLATYCLIBE INTEGRICOLLIS, n.sp.

Short, broad, depressed, sub-parallel, nitid brown above and below; antennae, palpi and tarsi reddish. *Head* wide and convex, eyes small, surface—as also that of pronotum—closely and rather coarsely punctate; antennae short, with 3-jointed club—less enlarged than in *P. brevis* miki. *Prothorax* truncate at base, squarely emarginate at apex, anterior angles rather sharply advanced, sides straight—slightly wider at base than at apex, with narrow, horizontal, lateral border bounded internally by a fine sulcus, the external edge entire, disc without medial line or foveae. *Scutellum* small. *Elytra* of same width as and closely adapted to prothorax, punctate-striate, the intervals a little convex and smooth, the punctures in striae round, regular and close. Under surface of head and sternum strongly punctate, abdomen sparsely punctate; fore-tibiae (at least) spinose on outside edge. *Dimensions*: 4×2 mm.

Hab.—Acaëia Creek, MacPherson Ranges, N.S.W. (H. J. Carter), National Park, Q'land. (H. Hacker) and Queensland. [British Museum (Challenger Expedition).]

Six specimens examined show a species so close to *P. brevis* Cart. that my own two specimens had been placed under that label in my cabinet. The two Queensland examples sent by Mr. Blair, who called attention to their difference from *P. brevis*, made me examine them more closely and the following distinctions were noted:—Head and pronotum more coarsely punctate, antennal club 3-jointed; sides of prothorax entire; underside less coarsely and more sparsely punctate; size smaller. (N.B.—In my description of *P. brevis*, I omitted the fact that the sides of prothorax are finely, irregularly crenulated, while the antennal club, as seen in figure, is more or less 4-jointed.)

Types in Coll. Carter.

PTEROHELAEUS.

Synonymy.

(a) *P. planus* Bless. = *P. hepaticus* Pasc = (?) *P. bagotensis* Blackb.

(b) *P. piceus* Kirby = *P. pascoei* Macl. = *P. pruinus* Pasc

(c) *P. dispar* Pasc. = *P. abdominalis* Lea.

(d) *P. tristis* Germ = *P. memnonius* Pasc. = *P. tenuistriatus* Lea.

(e) *P. geminatus* Blackb. = *P. sub-punctatus* Cart.

(f) *P. dispersus* Macl. = *P. fraternus* Blackb. = (?) *P. ovalis* Blackb.

(a) *vide* Blair. (b) Mr. Blair writes: "The type of *P. piceus* Kby appears to be lost, but I send a specimen of what passes with us for this species, and with which I consider *P. pruinus* Pasc. and *P. pascoei* Macl. (det. H.J.C.) identical." (c) My own examples have been compared with Lea's type and secondly with an example of *dispar* (♀) from the British Museum. An example of *P. dispar* ♂ (?) much smaller than the ♀ (14 × 9 mm.) is identical with *P. broadhursti* Lea, but I consider this specimen to be doubtfully conspecific with the female example sent, and Mr. Lea's name should stand till further evidence is adduced. (d) Mr. Blair states "The type of *memnonius* Pasc. certainly has quite distinct granules (= *tristis* Germ.)." An example of *memnonius* sent me from the British Museum agrees with my own example that has been compared with *P. tenuistriatus* Lea. (e) is certain from example sent of *geminatus*. (f) *vide* Blair, with some doubt as to *ovalis*.

P. servus Pasc.—A specimen sent from the British Museum is identical with examples in my collection from Walgett and Narrabri, N.S.W. The type was described as from Victoria.

P. agonus Pasc.—An example sent is quite new to me, and in size and form near *peltatus* Erichs., but has head and thorax more clearly punctate, the elytr: l margins narrower, all intervals quite flat, and seriate punctures much finer.

PTEROHELAEUS INTERRUPTUS, n. sp.

Elliptic, depressed, subnitid, black, tarsi and apical joints of antennae reddish. *Head* very minutely punctate, eyes separated by a space of about the diameter of one eye, antennae with last 4 joints enlarged, 9th-10th round, 11th oblong, elliptic. *Prothorax* 3 × 7½ mm., length measured in middle, base bisinuate, apex deeply emarginate, anterior angles sharply produced—though slightly blunted at extreme end; sides continuing the elliptic curve of elytra but slightly sinuate before the anterior angles; posterior angles acute and falcate; disc nearly smooth or merely microscopically punctured; foliate margins a little concave, rather wide medial basal impression and shallow foveae on each side of this. *Scutellum* equilatero-triangular. *Elytra* of same width as prothorax at base, widely ovate and depressed, foliate margins wide and sub-horizontal; irregularly linear-punctate, with nine more or less raised intervals of which the 1st, 3rd, 5th and 9th are more raised than the others, the 1st bifurcating at scutellum, the 9th costiform; from halfway to, apex these intervals broken up into rows of nodules; between the intervals are double rows of small punctures, those near suture very irregular; outside the 9th and limiting the foliate margins, a row of large punctures; abdomen finely strigose. *Dimensions*: ♂ 14 × 9, ♀ 15 × 10 mm.

Hab.—Forest River District, W.A. (Western Australian Museum), also Kimberley District W.A.

Two examples examined show a species rather closely allied to the Queensland species *P. accanus* Pase., having rather similar elytral sculpture, but the form is more regularly elliptic, the foliation less wide, the sides of prothorax feebly sinuate. In *P. arcanus* the lines of nodules are continuous throughout, except for the costate 3rd interval.

Type (σ) in the Western Australian Museum, Perth.

PTEROHELAEUS NODICOSTIS, n. sp.

Widely ovate, convex, reddish brown, head and pronotum black, palpi and legs red, antennae wanting. *Head* and pronotum very finely punctate, eyes moderately distant (as in *P. piceus* Kirby). *Prothorax* transverse, foliage margins wide and horizontal, anterior angles widely rounded, posterior angles produced, but widely blunted at apex, medial line faintly indicated. *Elytra* of same width as prothorax at base, sides sub-parallel to halfway, widely rounded behind; very convex, foliate margins wide and horizontal, little narrowed behind; disc with 17 rows of punctures, besides a short scutellary row; all, except this and extreme lateral row, in pairs between costate intervals: the seriate punctures fine near suture, much finer than in *piceus*, larger towards sides, there as large as in *piceus*; the suture raised, the 1st and 3rd costae flattening out on basal half, the rest carinate-crenulate on basal half; all costae nodulose on apical half, a single row of nodules forming a crest on each raised interval. Underside lightly strigose, apical segment punctate. *Dimensions*: $21 \times 13\frac{1}{2}$ mm.

Hab.—Moree District, N.S.W. (Mr. F. C. Morse).

A single specimen lately sent by its captor, is a very distinctly differentiated member of Maeleay's Sect. I.2. Species of broadly ovate form, and largely expanded margins to both thorax and elytra. It is the only one besides *arcanus* Pase., *raucus* Blackb., and *interruptus* (*supra*) in which the elytra have granules; *arcanus* is, however much more widely oval, with the wide sutural interval confusedly punctate, and the suture itself nodulose *inter multa alia*; *raucus* has a totally different sculpture. In size and foliation it is near *piceus* Kirby, but is more convex. It differs from *interruptus* (*supra*), which has the costae clearly interrupted, leaving island nodules.

Type in Coll. Carter.

PTEROHELAEUS OBLONGUS, n. sp.

Elongate parallel, whole surface rather nitid black, legs very nitid; antennae—especially apical half—and tarsi reddish. *Head* finely punctate, eyes separated by a space of about half the diameter of one; antennae with third joint as long as 4th and 5th combined, 2nd—6th linear, 7th obovate, 8th—10th enlarged, ovate, 11th elongate ovate. *Prothorax* (4×9 mm.), emarginate at apex, bisinuate at base, widest a little in front of base, thence converging lightly to base, more strongly and arcuately to apex; base nearly twice as wide as apex (9:5); foliate margins wide and slightly concave, extreme margin reverted; anterior angles prominent but bluntly rounded, posterior sharp and sub-rectangular (feebly falcate); disc nearly smooth, very minutely punctate, medial line clearly impressed; two deep triangular foveae at base. *Scutellum* very large, curvilinear triangular. *Elytra* slightly wider than prothorax at base and about four times as long, sides parallel for the greater part, margins very narrow, slightly widened at the shoulders, there forming an obtuse angle; disc coarsely striate-punctate, with about 18 sub-obsolete striae, including a short scutellary and a lateral row of larger punctures, seriate punctures round and deep, becoming finer at shoulders and apex,

humeral gibbus pronounced, intervals flat, except the sutural, 4th, 8th, and 12th, these wider than the rest and more or less costate, the sutural costa bifurcating at the scutellum and continuous to the base; prosternum sharply carinate and lightly transversely rugose. basal segments of abdomen punctate and strigose, apical segments very finely punctate. *Dimensions*: 21—22 × 10 mm.

Hab.—Gingken, Blue Mountains (R. B. Carter), Blue Mountains (Mr. Deuquet).

Two examples show a species that I have hitherto hesitated to distinguish from *memnonius* Pase. (= *tristis* Germ.), but with the information lately acquired from examples sent by Mr. Blair, it is evidently not that species. It belongs to Macleay's Sect. ii., Sub-section 1, and is nearest to the Tasmanian species *P. reichii* Breme, from which it is chiefly distinguished by (1) more nitid surface, and wider form, (2) more clearly channelled and foveate pronotum, (3) narrower elytral margins, (4) considerably larger seriate punctures.

Type in Coll. Carter.

HELAEUS LATIFOLIUS, n.sp.

Widely obovate, sub-nitid brown black, elytra with short upright fine bristles; tarsi, apical joints of antennae and tarsi reddish, underside opaque black. *Head* densely and finely punctate, antennae with 3rd joint as long as 4th-5th combined; joints beyond 8th wanting. *Prothorax* 5 × 9 mm.; foliate margins wide, in ♂ areuately narrowed from base to apex, in ♀ expanding in front of base, thence widely rounded to apex; disc and margins very finely and sparsely punctate; the punctures on margins bearing each a short bristle, foliate margins a little concave and raised at the edges, anterior processes concave above, overlapping and rather sharply rounded at apex, posterior angles falcate and overlapping elytra; disc with feebly-raised carina terminating behind in a small, narrow, rounded knob in front of base, the latter widely bisinuate. *Scutellum* widely transversely oval. *Elytra* of same width as prothorax at base and more than twice as long; obovate, shoulders obtusely rounded, margins wide, concave and reflexed, more minutely setose than those of the prothorax, each elytron separately rounded at apex, disc with suture carinate and two strongly raised carinate costae, these sub-parallel, less than 2 mm. apart, slightly diverging at scutellum, and suddenly terminating at apical third; space between costae, as also area between costae and margins, coarsely punctate, each puncture producing a short reddish bristle, the extra-costal spaces with two or three ill-defined longitudinal ridges. Abdomen densely punctate, prosternum finely shagreened, epipleurae coarsely and closely punctate. *Dimensions*: 18 × 11½ mm.

Hab.—Margaret River, Western Australia (Mr. J. Clark).

Two examples, the sexes, show a species near *H. gilesi* Cart., but differing in (1) much wider foliate margins of prothorax and elytra, (2) shorter and less widely separated elytral costae, (3) much more coarse punctures on both elytra and epipleurae. Though the dimensions appear the same as those of *H. gilesi*, the species is really more elongate and nearer *H. frenchi* Cart. in outline, the width being largely due to the very wide margins shown by the following comparison. In *H. gilesi* the width of body and of combined margins are 9 and 2 mm. respectively. In *H. latifolius* the corresponding widths are 7½ and 3½ mm.

Type ♂ in Coll. Carter; ♀ in that of Mr. Clark.

MENFARCHUS, n.gen. Tenebrionarum. (Text-fig 3.)

Lightly obovate, depressed; antennae long (extending nearly to base of prothorax), 3rd joint very little longer than 4th, apical joints widely oval and flat-

tened; epistoma arcuate (concave) in front, without marked sulcus separating forehead; mentum carinate in middle, its sides straight and narrowing to apex—this bilateral, forming a triangular notch; all palpi with apical joints securiform.



Text-fig. 3.]
Menearchus impresso-sulcatus.

Front coxae round, posterior transverse, all coxae furnished with trochantins. Prosternum convex, produced between fore-coxae into a blunted process, received into a triangular mesosternal notch; mid-intercoxal process widely, post-intercoxal process squarely rounded, abdomen with wide longitudinal depression; fore-tibiae strongly bent and enlarged at apex, post-tibiae curved and strongly tomentose within, all tibiae shortly bispinose at apex; elytra sulcate-sub-punctate. A genus quite at variance with any other yet described. More ovate than *Hypaulax*, less so than *Asphaltus*, more depressed than either, its most striking features are the combination of the usual *Tenebrioninae* characters of the head, body, and strongly curved tibiae, together with more elongate antennae and a sculpture *sui generis*.

MENEARCHUS IMPRESSO-SULCATUS, n.sp. (Text-fig. 3.)

Opaque black above, nitid beneath, glabrous; antennae, oral organs and tarsi piceous. Head large and flat, labrum emarginate, epistoma arcuate, its sides advanced; antennal orbits wide and depressed; eyes narrow and transverse; upper surface—like that of pronotum—uniformly very densely and finely punctate. *Prothorax*: 5×7 mm. (length measured in middle), arcuate emarginate at apex,

bisinate at base, anterior angles sub-acute, tips blunted; sides evenly rounded, widest at middle, posterior angles rather widely acute and produced so as to overlap slightly the elytra; lateral border narrowly raised—not sulcate within—still narrower at base and obsolete at apex; disc with a faint indication of medial channel. *Scutellum* convex, strongly transverse, punctate. *Elytra* slightly wider than prothorax at base and two and a-half times as long, widest behind middle, epipleural fold forming a marked but wide humeral angle; with 9 sulci, including extreme lateral one (besides a very short scutellary sulcus); the intervals evenly and roundly convex and impressed on sides by shallow sub-punctate impressions, these more pronounced laterally, the two outside sulci definitely punctate; intervals everywhere covered with dense system of fine punctures as on head and pronotum. Undersurface and legs closely punctate, abdomen more coarsely and less closely than upper surface, hind femora dentate—a line of tomentum extending from base to this tooth; fore-tibiae having apical third abruptly bent inwards and thence much enlarged, mid-tibiae triangularly enlarged at apex, posterior tibiae strongly curved, widely dentate near base, with a line of coarse tomentum on inner edge; three basal joints of front tarsi enlarged, basal joint of hind tarsi about as long as the 2nd and 3rd combined. *Dimensions*: $19-20 \times 7\frac{1}{2}-8$ mm.

Hab.—New South Wales (Mr. Deuquet).

Two ♂ specimens taken by Mr. Deuquet, one of which has been generously placed at my disposal. The tibial characters alone would distinguish this unusual insect from any other Australian member of the *Tenebrionidae*.

Type in Coll. Carter. It is unfortunate that the captor of this fine species did not affix a locality label to his specimens, and in consequence there is some doubt as to the exact habitat, but Mr. Deuquet *thinks* that he took them near Mulgoa (Upper Nepean River).

MENEPHILUS LONGICOLLIS, n. sp.

Elongate, sub-parallel, nitid black; antennae, palpi and tarsi castaneous. Head closely and finely punctate, widest in front of eyes, these not prominent. Prothorax very convex laterally, strongly and widely produced in middle at apex, base truncate, anterior angles obsolete (widely rounded off); sides nearly straight (or feebly areolate) on apical half, narrowing considerably and rather abruptly to base, posterior angles widely obtuse; basal border narrowly raised, lateral border not seen from above, disc evenly and finely punctate, without any sign of foveae or medial line. Scutellum triangular, punctate. Elytra wider than prothorax at base, and about twice as long, humeri sharply rounded and prominent and a little produced forward; sides parallel to near apex, with very narrow horizontal border; disc striate-punctate, with 8 deep striae besides a short scutellary stria on each elytron, containing rows of large punctures enulating the sides of interstices and rather irregularly placed, those near suture more closely placed, more widely separated in external striae; intervals raised but somewhat flattened above, and minutely punctate. Pro- and metasterna smooth, the latter with medial depression; abdomen finely punctate, each segment with a row of large punctures on front margin, a similar row surrounding the hind coxae. Dimensions: 10—11 × 3½—4 mm.

Hab.—Kellerberrin, Western Australia (Mr. W. Crowshaw).

Three specimens examined show a very distinct species nearest to *M. coerulescens* Haag, but clearly differentiated by the longer and more cylindrical prothorax, wider head (in *coerulescens* the head is widest at the eyes; in *longicollis* the earthus extends laterally in front of but beyond the eyes), coarser elytral sculpture, besides the unusual character of the rows of large punctures at the margins of abdominal segments.

Type in Coll. Carter. (N.B.—The colour of *M. coerulescens* Haag varies from blue to black—the latter being more often seen.)

Brises. In my revision of the *Tenebrioninae** the table of *Brises*, line 4, should read “4(6) Elytra *tricostate*” (for *bicostate*).

Cyphaleinae. In my revision of this sub-family† the numbers on Plate vi., corresponding to the index, p. 105, were misplaccd, and should be read in *vertical columns* downwards, instead of in horizontal rows.

Ospidus. From a comparison with type, it is clear that my original identification of *O. chrysomeloides* Pase. was erroneous.

In consequence, *O. chrysomeloides* Pase. = *O. paropsoides* Cart., and *O. chrysomeloides* Cart. (*nec* Pase.) requires a name, and is defined below. The genus *Ospidus* placed by its author in the *Helaeinae*, should be classed, as I now consider, with the *Cyphaleinae*, near *Bolbophanes*.

OSPIDUS MAJOR, n. sp.

Widely ovate, very convex, nitid castaneous bronze above, less nitid beneath and rather densely clothed with short recumbent golden hairs. Compared with *O.*

*These Proc., xxxix., 1914, p. 46.

†These Proc., xxxviii., 1913.

chrysomeloides Pasc. the head is less coarsely rugose, the pronotum is minutely and lightly punctured and more nitid—the former rather strongly depressed between the eyes, the latter with only a faint depression near base to indicate the medial channel, the foliate margins transversely rugose. *Elytra* with shoulders obtuse, the sub-obsolete costae even less obvious, the disc much more finely punctate, without anywhere a sign of linear arrangement. *Dimensions*: 15 × 10 mm.

Hab.—Cooktown, Cairns, etc., N. Queensland.

A species easily separated from *O. chrysomeloides* by its larger form, brighter colour and much finer puncturation. I have *O. chrysomeloides* from Townsville, Brisbane and Tambourine Mountain, S. Queensland. *O. gibbus* Blackb. from Cape York is even more convex than *major*, is castaneous, not metallic, with black markings, and coarse irregular punctures. The three species may be distinguished as follow:—

1—3 Concolorous and metallic.

2. Coppery bronze, pronotum closely and finely rugose.

Hab.—S. Queensland *chrysomeloides* Pasc.
paropsoides Cart.

3. Castaneous bronze, pronotum very lightly punctate *major*, n.sp.

4. Non-metallic castaneous with black maculae *gibbus* Blackb.

ADELINAE.

CARDIOTHORAX.

(a) *C. acutangulus* Bates = *C. constrictus* Cart. = *C. aeripennis* Blackb., var.

(b) *C. aeneus* Bates = *C. coeruleo-niger* Cart., var. A = *C. macleayensis* Cart., var. B.

(a) The first of these is certain by a comparison of specimens by Mr. Blair. I was misled by three inaccuracies in Bates's description.—(1) the colour is not black. (2) there is a sulcus between margin and disc of prothorax, (3) the habitat is not Brisbane. In general *C. aeripennis* Blackb. differs from *acutangulus* Bates in the following respects.—hind angles of thorax less wide, narrower sinuation, extreme border thicker, with a characteristic carina at anterior angles, noted by author. However, these differences are so modified in some examples that it must be confessed that the distinctions are in some cases evanescent. I took a large number of *acutangulus* at Capertee, N.S.W., and some dozens of the typical *aeripennis* at Mount Wilson, Blue Mountains.

(b) These are well-marked colour variations in fresh examples, but I can find no structural differences whatever between the three. I found the first two, *aeneus* and *coeruleo-niger*, in separate batches—never in company—some mile or two apart at Bullahdelah, Port Stephens, while *macleayensis* occurs from the Macleay River to Coraki on the Richmond. The typical *aeneus* has a blue-black thorax, with brassy elytra; *coeruleo-niger* is wholly blue-black, while *macleayensis* is a bright bronze, often with brassy gleam at sides. The varietal names should be retained. Four new species are described below.

Adelium calosomoides Kirby = *A. bicolor* Cart. (The latter is, I think, only one of the many varieties of the former having red antennae.)

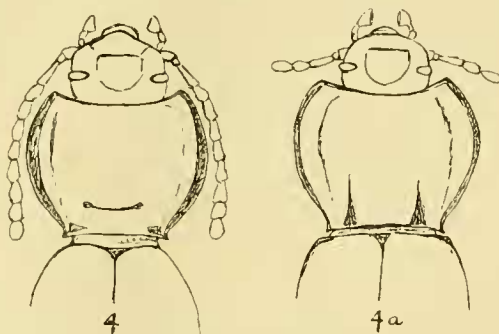
Adelium angulatum Blackb. My notes on this species* were based on a misnamed specimen given me as *angulatum* by the late Canon Blackburn. This is certainly *angulicolle* Casteln. The type of *angulatum*, Mr. Blair writes, "is certainly not *A. angulicolle* Casteln. It resembles in thorax and elytra *A. scytalicum* Pasc., and is, I think, the same species."

*These Proc., xxxii., 1908, p.269, and Trans. R. Soc. S. Aust., xxxviii., 1914, p.403.

Seirotiana crenicollis Pasc. = *S. denticollis* Cart. I now consider the latter as merely a variety of the former (a Victorian species); and that Mr. Duboulay was mistaken as to the locality of capture.

CARDIOTHORAX MARGINATUS, n. sp. (Text-fig. 4.)

Elongate-ovate, polished black, antennae reddish-brown, tarsi with red tomentum beneath. *Head* smooth on front, minutely punctate on clypeus, the latter produced in middle, the usual frontal impression deep. *Prothorax* cordate, widest before middle, arcuate-emarginate at apex, front angles rounded, sides well rounded, sinuate behind, dentate posterior angles pointing obliquely backward; foliate margins divided from disc by sulcus, lateral border wide and round, disc



Text-fig. 4. *Cardiothorax marginatus*.

Text-fig. 4a. *Cardiothorax walckenaerii* Hope.

with fine medial sulcus, a transverse sulcate impression parallel to and near base, and two deep triangular foveae near hind angles. *Scutellum* with a single large puncture. *Elytra* slightly wider than prothorax at base, humeri obsolete, sulcate, intervals of uniform width, flat on disc, a little convex at sides and apex; underside smooth. *Dimensions*: 16—17 × 5½—6 mm.

Hab.—Mittagong (Mr. Deuquet); also Blue Mountains (H. J. Carter).

Two examples from Mittagong, and a specimen I have from Newnes, which I think is conspecific, are allies of the common Sydney species *C. walckenaerii* Hope. The following distinctions necessitate a specific name:

<i>marginatus</i> .	<i>walckenaerii</i> (Text-fig. 4a.)
<i>Colour</i> . Polished black.	Sub-nitid bronze-black.
<i>Clypeus</i> . Produced in middle.	Widely rounded.
<i>Prothorax</i> . Border wide.	Border narrow.
Transverse sulcus near base.	None.
Latero-basal foveae triangular, running into lateral depression.	Basal foveae elongate (parallel to medial line), not connected with lateral depression.
<i>Elytra</i> .—With 7 flattish intervals on disc; space beyond these smooth, with the usual lateral striae.	With 8 convex intervals; space beyond these with 2 rows of large punctures.

The sexual distinction is very similar but less definite than is the case with *C. walckenaerii*.

Types in Coll. Carter.

CARDIOTHORAX METALLICUS, n.sp. (Text-fig. 5.)

Elongate-oval; above metallic blue, sometimes with violet or brighter sheen towards margins, underside black, antennae fuscous, tarsi clothed beneath with red hair. *Head* finely punctate, frontal impression sharply angulate, a seta near each angle on epistoma; a round fovea between eyes and a few foveate punctures on forehead, antennal joints pear-shaped, 3rd much longer than 4th, and sub-cylindric, 11th half as long again as 10th, ovate-acuminate. *Prothorax* 3×4 mm. widest in front of middle, arcuate-emarginate at apex, base angulate and narrowly marginal, sides moderately rounded, converging to base, anterior angles rounded, posterior obtuse, undentate; lateral foliation narrow, without separating sulcus, and bearing two or three setae; disc with well marked medial sulcus, and basal impression near angles, sometimes with a few shallow impressions on each side of middle. *Scutellum* convex, elongate, rounded behind. *Elytra* rather narrowly ovate, shoulders obsolete, epipleural fold very narrow, with 9 well-marked sulci on each (the 9th on the sides), intervals evenly convex, the first two and sixth continuous to apex, 3rd joining 5th on declivity. Underside smooth; legs without sexual characters. *Dimensions*: $13-14 \times 4-4\frac{1}{2}$ mm.

Hab.—Bunya Mountains, S. Queensland (Mrs. Hobler, Mr. R. Illidge and H. J. Carter).

Twenty specimens taken by the author, besides those taken by the above, during a camp of the Royal Australasian Ornithologists' Union. The species can only be confused with *C. coeruleo-niger* Cart., which, however, has a truncate base to the prothorax, with dentate posterior angles, each elytron with only five clearly defined sulci *inter alia*.

Types in Coll. Carter.

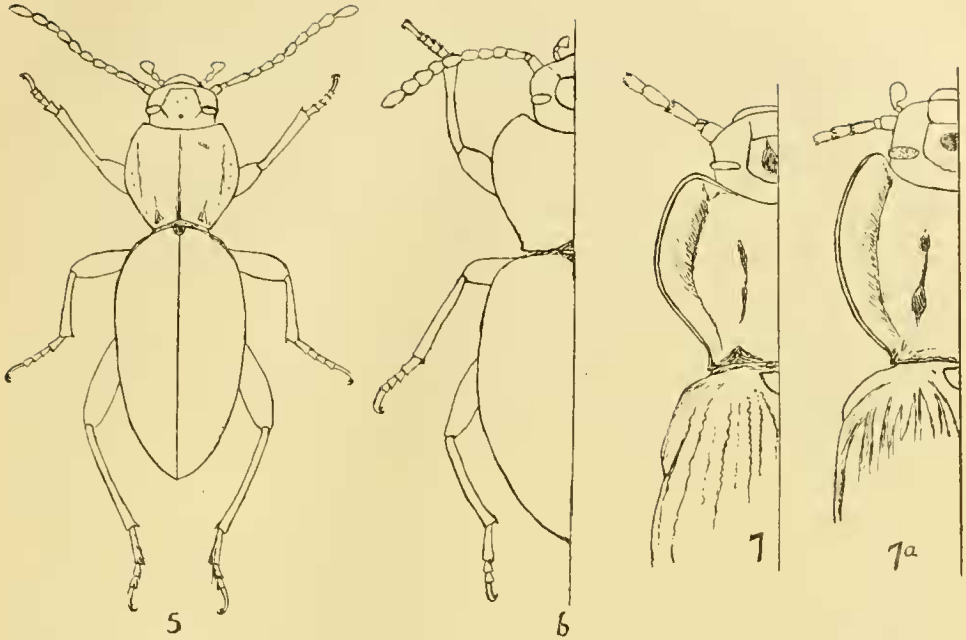
CARDIOTHORAX REGULARIS, n.sp. (Text-fig. 6.)

Elongate-ovate, opaque brown-black, antennae and tarsi brown, legs and underside nitid black. *Head* with epistoma rather sharply produced in front, with rhomboidal frontal impression; antennae having joint 3 half as long again as 4. *Prothorax* arcuate-emarginate at apex, feebly arcuate at base, anterior angles rounded, sides well rounded at middle; posterior angles narrowly dentate, with a small blunt tooth directed downwards and outwards; foliate margins horizontal with narrow nitid border throughout; disc rather flat, with a medial sulcus, two small foveae on each lobe (more or less connected by a depressed line), and a wide depression between disc and foliate margins. *Scutellum* oval. *Elytra* sulcate, with nine regular convex intervals, the lateral three narrow; epipleurae and underside smooth. *Dimensions*: $15-17 \times 5-5\frac{1}{2}$ mm.

Hab.—Toronto (Lake Macquarie), 90 miles N. of Sydney (Mr. Deuquet).

Five specimens examined—showing no marked sexual distinction—of a species very near *C. alternatus* mihi but clearly differentiated as follows:—

<i>regularis</i> .	<i>alternatus</i> .
<i>Head</i> . Narrower and more pointed.	Wider and squarer.
<i>Antennae</i> . More slender.	Stouter.
<i>Prothorax</i> . Anterior angles rounded.	Anterior angles sub-acute.
Posterior tooth narrow.	Posterior tooth wide.
<i>Elytra</i> . Intervals* sub-equal.	1st, 3rd & 5th evidently wider than rest.

Text-fig. 5 *Cardiothorax metallicus*.Text-fig. 6. *C. regularis*.Text-fig. 7. *C. undulaticostis*.Text-fig. 7a. *C. humeralis* Bates

*The 3rd and 5th elytral intervals are slightly wider than the adjacent intervals near the base in many spp. (including *regularis*), but this is quite different from the evident alternate inequality shown in *alternatus*.

Types in Coll. Carter.

CARDIOTHORAX UNDULATICOSTIS, n. sp. (Text-fig. 7).

Elongate, opaque black, costae of elytra and abdomen nitid black, tarsi and apex of tibiae clothed with golden tomentum. *Head*: frontal impression square in front, rounded behind, containing a triangular impression within, clypeus rounded in front, rather prominently angulated at sides in front of eyes; antennae stout, 3rd joint not much longer than 4th, 4th—10th more or less oblong ovoid, 11th scarcely longer than 10th. *Prothorax* ($5 \times 6\frac{1}{2}$ mm.) cordiform, wider at apex than at base, widest about middle, areolate-emarginate at apex, base subtruncate (except at angles), anterior angles widely rounded, sides gradually widening to half-way, then strongly sinuately narrowed, the posterior angles forming a strong triangular tooth bent diagonally outwards and a little backwards; foliate margins wide and up-turned, separated from disc by a wide depression; extreme border nitid and thick; disc with deep medial sulcus, and a linear depression on each side of this, besides two large, triangular, basal foveae. *Elytra* considerably wider than prothorax at base and nearly $2\frac{1}{2}$ times as long, obovate and flat, humeri (formed by epipleural fold) very prominent and irregular (the right clearly angulate, the left rounded and ear-like); each elytron with nine raised, crenulate or wavy costae—the 1st, 2nd, 3rd, 5th and 7th more sharply raised than the rest,

especially the 7th; the 9th (on side) not visible from above; the external costae less wavy than those near suture; the wide depression between costae of irregular width, the 6th and 7th wider than the rest, and showing faint, obsolescent, punctures; underside smooth, prosternum opaque. *Dimensions*: 19×7 mm.

Hab.—Moruya, New South Wales (E. H. MacD. Murray).

Two examples were obtained by Mr. W. DuBonlay, of which one was kindly given me some years ago. At the time, I erroneously identified it as *C. humeralis* Bates, but the true *humeralis* has lately been clearly identified by the courteous help of Mr. Blair, to whom I sent drawings of the two species to compare with the type (no Australian Museum possesses a specimen). Bates's species has a very differently shaped prothorax (*see* fig. 7a), while the elytra have 8 uniform costae, scarcely, or very feebly, crenulate, with narrower sulci of equal width. The only example I have seen (except the type, in 1907) was taken at Port Macquarie by Dr. E. W. Ferguson and generously given to me. The two species are, however, allied and belong to the same section of my tabulation. (*N.B.*—In this section there are no external sexual characters.)

Type in Coll. Carter.

CARDIOTHORAX EXCISICOLLIS, n. sp.

Obovate, depressed, opaque black above, underside nitid. *Head* with pronounced stirrup-shaped impression on front, this outlined by deep sulcus; antennae very stout, joints oval, 3rd longer than 4th; clypeus sub-truncate. *Prothorax*—length in middle slightly less than width; widest near front; foliate margins wide and obliquely raised, separated from disc by wide sulcus, anterior angles widely rounded and produced, lateral recurved border moderately wide; sides arcuately converging behind, with a wide notch or excision preceding the acute, outwardly-directed, hind angles; base sub-angulate (scarcely coarctate); disc with wide and deep medial sulcus and a short sulcus on each side of this. *Scutellum* transverse, with a triangular depression behind it. *Elytra* widely obovate and rather flat, considerably wider than prothorax at base, shoulders formed by epipleural fold squarely rounded, each elytron with 9 rather sharply raised nitid costae, those near suture feebly undulate, 1st to 5th subgeminata, divided by fine sulcate line, the 8th short, extending from half-way to the apical declivity, the 9th starting immediately behind epipleural fold and forming a limiting border to the elytra throughout; between the 9th and the epipleural fold a wide convex interval bounded on each side by a row of foveate punctures. Underside smooth, legs simple. *Dimensions*: 21×8 mm.

Hab.—Eidsvold, South Queensland (Australian and Queensland Museums).

Two examples in the Australian Museum and one in the Queensland Museum can only be confused with *C. quadridentatus* Waterh. from Port Bowen, which they resemble in form, colour and in the curiously excised posterior sides of thorax. The following comparison will distinguish them.

	<i>C. quadridentatus.</i>	<i>C. excisicollis.</i>
<i>Prothorax.</i>	Anterior angles acute and prominent.	Widely rounded, less prominent.
	Lateral border sub-obsolete; base sub-truncate.	Lateral border moderately thick; base sub-angulate.
<i>Elytra.</i>	Alternate intervals costate.	All costae uniformly raised.

Licinoma, Daedrosis, Brycopia and Dinoria.

Pascoe's genera were insufficiently defined, while he omitted *Daedrosis* from his tabulation of the group* though Bates's genus was published some six months earlier. Of *Dinoria* its author stated "very similar to *Brycopia* and only to be distinguished by the pilose tarsi." Of this distinction Mr. Blair writes "on an examination of the types I fail to perceive." My own specimens, gummed on cards, had not hitherto been critically examined; but having now closely examined *D. picta* Pasce. and *B. pilosella* Pasce. under a Zeiss binocular, I cannot separate them on this tarsal character, both showing hairs together with a short tomentum. It is clear, therefore, that the name *Dinoria* should be sunk as a synonym. From a specimen sent from the British Museum it is certain that *B. diemenensis* Cart. is the same species as *D. coelioides* Pasce. Of the latter Mr. Blair writes "the type is from Queensland though we have 8 specimens from Tasmania, and one from K. George's Sound." I think that the Queensland and Western Australian localities are probably label mistakes, the species of *Brycopia* being, in general, localised; though I have one species, *B. minuta* Lea, from Sydney, Mulwala (Vic.), and Barossa (South Australia). I had always been puzzled over *D. coelioides*, and my difficulty was enhanced by the fact that another species from Tasmania, described below as *B. hexagona*, has, in the form of the prothorax, a much closer affinity to *D. picta* than the real *D. coelioides*.

A close re-examination of all the species of *Daedrosis* and *Licinoma* available, in conjunction with Bates's very detailed generic description, has had a somewhat disturbing effect on my previous ideas, which had been formed on a too prominent consideration of what now appear to me as secondary characters, antennae and sculpture. My predecessor Blackburn evidently held similar views, since the two insects he described as *Daedrosis* are both *Licinoma*, and indeed one of them, *D. victoriae*, is a synonym of *L. nitida* Pasce., the genotype of *Licinoma*. Mr. Blair's note on this is "*L. nitida* Pasce. is certainly generic with Blackburn's type of *Daedrosis victoriae* . . . and in my opinion *victoriae* should not be more than a var. of *nitida* (the puncturation of the thorax is a little coarser and less regular.*)" The two genera are to be distinguished as follows:—

<i>Daedrosis.</i>	<i>Licinoma.</i>
<i>Prothorax.</i> Emarginate at apex; sides crenulate.	Not emarginate at apex; sides entire.
<i>Humeri.</i> Prominently dentiform.	Rounded.

Other characters which differentiate the great majority of species lie in the antennae, tarsi, sculpture and clothing. In *Daedrosis* the antennal joints are round and coarse with an unusually large terminal joint. In *Licinoma* the joints are obonic or triangular with terminal joint of moderate size. Concerning the tarsal joints, Bates states (under *Daedrosis*) "The comparative length of the first and last joints of the posterior tarsi does not appear to be a character possessing any generic value. In *Thoracopherus* [now *Cardiothorax*] the first joint is longer, equal to, or shorter than the last, according to the species, and even, I believe, according to the sex." I have just examined both sexes of 16 species, including 7 species of that author, and find in every case that the first joint is longer than the last. Again it would appear that this comparative length of joints is a generic test. In *Daedrosis* (i.e. in the species included below), also generally in

* Ann. Mag. Nat. Hist., (4), iii., 1869, p.133.

Leptogastus, the first joint is shorter than the last, while in *Licinoma* and *Brycopia* the first joint is either greater or (in a few cases) of equal length to the claw joint. The sculpture of *Daedrosia* is generally coarse, with more or less pilose clothing, while the species of *Licinoma* are generally glabrous, with fine sculpture. *Brycopia* is distinguished from both *Daedrosia* and *Licinoma* by the round (as seen from above) and generally prominent eyes, the prothorax is not emarginate at apex, and the species are generally smaller, and of shorter form. The sculpture is generally coarse (except in the *femorata*, *minor* group), and the surface glabrous, or pilose; the apical joint of the antennae is of moderate size, the other joints in general more or less moniliform. In this difficult group of genera there are cases where some compromise is necessary,* at least so far as the secondary characters, referred to above, go, as the preferable alternative to the erection of new genera on fine distinctions.

The following synonymy of the group has been investigated:—

Brycopia = *Dinoria*.

Brycopia (*Dinoria*) *coelioides* Pasc. = *B. diemenensis* Cart.

Licinoma nitida Pasc. = var. *Daedrosia victoriae* Blackb.

L. (*Daedrosia*) *monticola* Blackb. = *L. puncta-latera* Cart.

L. elata Pasc. = *L. violacea* MacL.

In the last case I compared the specimen of *elata* from the British Museum with specimens labelled *elata* Pasc., and the type of *violacea* in the Australian Museum, and note that *elata* was correctly named and that the type *violacea* is merely a larger specimen of the same species.

On the Bunya Mountains (S. Queensland) last October, I took 3 examples of a *Licinoma* which may at present be called *L. elata* Pasc. var., but which differ from the typical form in the following characters:—(1) Antennae and tarsi black (or nearly so)—red in *L. elata*; (2) sides of prothorax less widened in middle, less abruptly narrowed behind. I had described this as new, but its sculpture and form approach that of *elata* so closely that it is inadvisable to separate it by name.

In *Daedrosia* my table† must be cancelled; eight of the nine species recorded there being disposed as follows:—*Daedrosia crenato-striata* Bates = *D. ambigua* Bates = *D. pygmaea* Haag.

D. angulata Cart. is a *Brycopia*, while *Leptogastus* was incorrectly placed as synonymous with *Daedrosia*, and is a distinct genus, differentiated by the complete absence of (1) hind angles of thorax, (2) shoulders, the narrowing of both segments in this region causing the “pedunculation” stated by Macleay. Besides the original *L. mastersi*, my *Daedrosia apiformis* and *D. hirsuta* must be transferred to *Leptogastus*, and the following new species added, while the species identified by me as *Daedrosia monticola* Blackb. is described below as *D. antennalis*. *Daedrosia interrupta* n. sp. must be transferred to *Adelium*.

In regard to the *Daedrosia* synonymy above, there is little doubt that the fine distinctions made by Bates for “*ambigua*” disappear in the examination of a long series, the Blue Mountains forms being generally darker and larger. The small forms taken on the coast, that I had identified as *pygmaea*, happened to be more pilose, but Mr. Blair considers that they are not specifically distinct from the type of *crenato-striata*. *Daedrosia* now, therefore, contains two species, the

*See note, infra, on *L. truncata*.

†Trans. Roy. Soc. S. Aus., xxxviii., 1914, p. 388.

genotype and *D. antennalis*, easily distinguished. *Macroperas* has the pronounced toothed humeri as in *Daedrosia*, together with the unusual development of the apical antennal joint; but I do not think these genera should be merged. *Leptogastrius*, *Licinoma* and *Brycopia* are now tabulated below.

Table of *Leptogastrius*

1—5	Elytral intervals raised (sub-costate).	
2—4	Colour bronze.	
3	Pronotum coarsely punctate	<i>mastersi</i> MacL.
4	Pronotum finely punctate	<i>occidentalis</i> , n.sp.
5	Colour blue	<i>cyaneus</i> , n.sp.
6—8	Elytral intervals flat.	
7	2nd and 4th elytral intervals impunctate	<i>hirsutus</i> Cart.
8	All elytral intervals coarsely punctate	<i>apiformis</i> Cart.

LEPTOGASTRUS CYANEUS, n.sp.

Narrowly elongate-ovate, body pedunculate, upper surface nitid dark blue, thinly clad with dark upright hair; antennae, oral organs, legs, underside, lateral margins of pronotum and humeral region castaneous. *Head* and pronotum rugose-punctate, the punctures coarse and sub-confluent, the ridges with a longitudinal tendency. *Head* rather flat on vertex, epistomal suture straight, eyes large and transverse, antennae moniliform, elongate and very robust. 3rd joint clearly longer than the 4th; from 4th to 10th increasing in size, 7th-10th spherical, 11th twice as long as 10th, widely ovate. *Prothorax* sub-eordate, considerably wider at apex than at base, anterior angles forming a sharp triangular tooth pointing a little outwards; sides with a slightly uneven outline (scarcely crenate), with a small sinuation before the hind angles and a wider one at anterior; the posterior angles finely dentate, the point directed outwards; extreme lateral border sharp, narrowly horizontal within, the latter with a row of large impressed punctures. *Elytra* sub-cylindric, shoulders widely rounded, sides parallel, apex rather bluntly rounded; punctate-sulcate, the sulci deep, closely placed and lined with densely packed, rather large punctures, the intervals sharp, except the sutural—this wide and smooth—with three or four large setae, equally spaced. Flanks of prosternum coarsely punctate, abdomen wanting, legs long, posterior tarsi having claw joint as long as the rest combined. *Dimensions*: $7 \times 2\frac{1}{2}$ mm.

Hab.—Queensland. (Blackburn collection.)

A single specimen (the type) in the South Australian Museum, is clearly distinguished from its congeners by colour, besides the sharply angulate prothorax and subcylindric elytra.

LEPTOGASTRUS OCCIDENTALIS, n.sp.

Elongate, sub-pedunculate, head and pronotum dark, elytra violet bronze, antennae, palpi, tibiae and tarsi red, upper surface moderately clothed with long upright hair. *Head* finely and evenly punctate, part between forehead and epistoma depressed, antennal ridge prominent; antennae long, the joints obconic and gradually widening outwards, apical joint less enlarged than usual. *Prothorax* subeordate, subtruncate at apex and base, sides areuately widening from the base the greatest width in front of middle, all angles obtuse, the posterior widely so, surface finely punctate, with some larger setiferous punctures irregularly placed, the medial sulcus distinct and terminated behind in a wide depression. *Elytra*

subcylindric, about as wide as prothorax and more than twice as long, shoulders rounded, sides parallel for the greater part; striate-sulcate, the intervals sharply raised and suberulate, the punctures in sulci large and apparently only partly separated by cancellate ridge; the 3rd, 5th, and 7th intervals containing setae; underside with sparsely scattered setiferous punctures, these more close on the last abdominal segment, each bearing longish white hairs. Posterior tarsi with first joint shorter than claw-joint. *Dimensions*: ♂, $5\frac{1}{2} \times 1\frac{1}{2}$ mm. ♀, $7 \times 1\frac{3}{4}$ mm.

Hab.—Parkerville, Western Australia. (J. Clark.)

Three specimens (2 ♂, 1 ♀) sent by Mr. Lea from the South Australian Museum, are the only ones of the genus yet recorded from Western Australia. It is nearest, though not very near, to *L. mastersi* Mael., having *much* more finely punctured prothorax, subcancellate elytra, and quite different antennae.

Types in the South Australian Museum.

DAEDROSIS ANTENNALIS, n. sp.

Subcylindric, dark bronze, nitid; underside and legs nitid black, palpi and tarsi red; antennae opaque brown (basal joints bronze). *Head* sparsely and coarsely punctate, epistomal suture straight; forehead rather flat, antennae moniliform, 3rd joint slightly longer than 4th, 7th-10th very gradually increasing in size, 11th ovate-acuminate, as long as the preceding three joints combined. *Prothorax* feebly emarginate in front, convex in the middle, anterior angles bluntly obtuse; slightly wider at apex than at base, sides lightly rounded, a little irregular in outline (subrenate), posterior angles obtuse; disc evenly, finely and closely punctate, without any sign of medial line, an elongate fovea on basal margin near each hind angle. *Scutellum* very small. *Elytra* wider than prothorax at base and more than twice as long, humeri produced as usual, sides very lightly widened behind middle; striate-punctate, the striae deep, the punctures therein smaller and less evident than in *crenato-striata* Bates, the intervals flatter and more nitid—the 3rd and 5th slightly wider than the rest, but all sharply convex at apex. *Prosternum* sparsely, its epimera and the elytral epipleurae coarsely punctate; abdomen smooth; post tarsi with 1st joint shorter than claw joint. *Dimensions*: ♂— $10 \times 3-3\frac{3}{4}$ mm.

Hab.—Mount Irvine (Blue Mountains), New South Wales. (H. J. Carter.)

Five examples, of which one has been sent to the British Museum, belong to a species I have long had in my cabinet as *D. monticola* Blackb. The true *monticola*, however, turns out to be a *Licinoma*, and is the species I described as *L. puncto-latera*, which must now be known as *L. monticola* Blackb., leaving my species without a name till now. *D. antennalis* is clearly separated from *D. crenato-striata* Bates (= *ambigua* Bates) by the following differences: (1) apical joint of antennae very large (in Bates's species this joint is about as long as the two preceding); (2) Prothorax much more finely punctate, the sides more rounded and sub-entire, its hind angles obtuse; (3) Elytral intervals flatter and smoother. I have not been able to find any external sexual characters.

Types in Coll. Carter.

LICINOMA AEREA, n. sp. (Text-fig 8).

Elongate-oblong, brilliant brassy bronze above; antennae, legs and underside castaneous. *Head* with deep wedge-shaped depression behind epistoma, the latter wide and convex; finely and evenly punctate, antennae with 3rd joint as long as 4th-5th combined, 5th-10th sub-eupuliform, successively and rather strongly

widened, 11th ovate, considerably larger than 10th. *Prothorax* feebly emarginate at apex, anterior angles rounded, sides widely and evenly rounded, posterior angles obtuse, base sub-truncate, lateral border very narrow, the sub-vertical area between disc and margin showing a rugose punctate surface; disc very nitid, covered with fine, shallow, sub-punctate impressions with a few, irregular, larger, shallow impressions (in general one on each side of middle), medial line sometimes feebly indicated near base (in one example fine and distinct). *Scutellum* small, round and nitid. *Elytra* rather wide and flat, clearly wider at base than prothorax, shoulders rather squarely rounded, sides slightly widening behind middle, disc sulcate-punctate, the punctures chiefly hidden in the deep narrow sulci, but (in good light) seen to be close and regular; intervals very nitid, rather flat and wide on centre, becoming convex and narrow at sides and apex, the 3rd and 5th wider than their neighbours; underside very nitid and glabrous, epipleurae finely punctate; protibiae lightly curved, post-tarsi with 1st joint longer than claw-joint. *Dimensions*: $8-11\frac{1}{2} \times 3\frac{1}{2}-4\frac{1}{2}$ mm.

Hab.—Dorrigo, New South Wales. (W. Heron).

Five examples (2 ♂). *L. violacea* Mael. is clearly distinct by its subangular sides of prothorax and uniform elytral intervals.

Types in Coll. Carter.

Var. comboyensis Cart.—with sides of prothorax less widened and the posterior angles blunted.

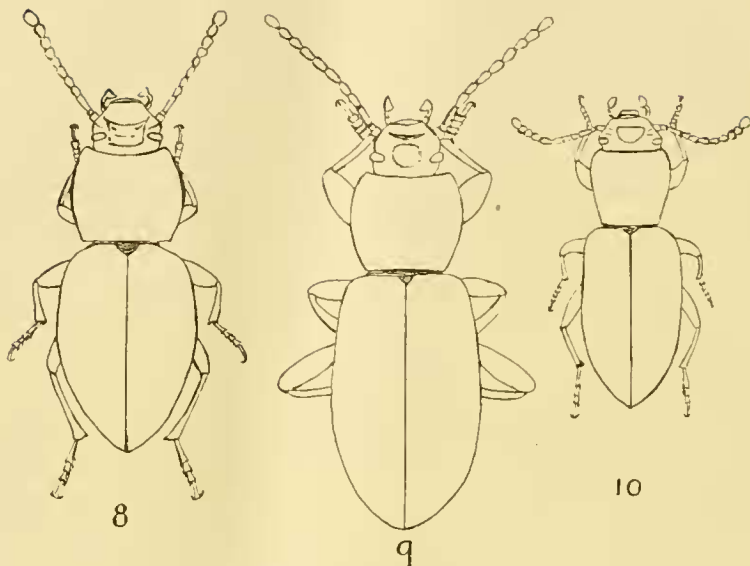
Three examples in Mr. Lea's collection may possibly deserve specific rank. Two of these are labelled "(Comboyne, N.S.W. H. Muldoon)," the third, N.S.W. These three are of the same colour as *aerea* and *angusticollis* Cart. and intermediate in form between them; but *angusticollis* has a quite smooth (impunctate) pronotum and the elytra sulcate, without seriate punctures.

LICINOMA APASIOIDES, n. sp. (Text-fig. 9.)

Elongate-ovate, nitid black, glabrous, antennae reddish brown, tarsi red. *Head* with deep, irregular impression on forehead, suture areolate; strongly punctate within the impression, eyes large, antennal joints oval, 3rd half as long again as 4th, 11th ovate-acuminate longer than 10th. *Prothorax* truncate at apex and base, narrowest at the latter, anterior angles rounded, sides rather widely rounded, widest before middle, thence more sharply narrowed to the defined obtuse posterior angles, lateral margin narrow; base with a pseudo-margin defined by a sulcus interrupted at middle; disc minutely and lightly punctate; medial line indicated in front and behind by a faint depression, an elongate fovea near lateral margin and (in two examples) four discal foveae, symmetrically placed. *Scutellum* triangular. *Elytra* clearly wider than prothorax at base, ovate, shoulders rather widely rounded; punctate-sulcate, the sulci deep, the punctures therein close and rather coarse, those near suture erenulating interior side of sulci; intervals strongly convex at sides and apex, somewhat flattened on disc, and impunctate; underside smooth, apical segment (only) finely punctate; tibiae straight. *Dimensions*: $12\frac{1}{2} \times 4\frac{1}{2}$ mm.

Hab.—Forrest, Victoria. (Mr. H. W. Davey.)

Four examples (I think males from their wide anterior tarsi) sent me some years ago, were put aside as *L. nitida* Pase. The recent identification of these shows this to be a distinct species, nearest, but not very close, to *L. monticola* Blaabk., but differing in its larger size, more rounded prothorax, with more sharply defined hind angles, clearly punctate elytral sulci, etc. It forms a link with



Text-fig.8. *Licinoma aerea*. Text-fig.9. *L. apasioides*. Text-fig.10. *L. meridiana*.

Apasis, and there are few characters which separate these genera, beyond the more developed humeri and the square posterior inter-coxal process of *Apasis*.

Type in Coll. Carter.

LICINOMA MERIDIANA, n.sp. (Text-fig. 10.)

Elongate-ovate, nitid black; antennae, tibiae and tarsi red. *Head* with rectangular frontal depression, coarsely punctate; antennae sub-moniliform, 3rd joint half as long again as 4th, apical three joints successively enlarged, 11th elongate-ovate, twice as long as 10th. *Prothorax* sub-rhomboidal, narrow, longer than wide, apex nearly straight, with the anterior angles very slightly protruding and sub-acute, sides feebly arcuate and narrowing to base, posterior angles obtuse, base truncate, disc rather strongly and regularly punctate; medial sulcus sharply defined throughout, with a fovea on each side of sulcus near middle (in one example), the narrow raised border separated from disc by a fine sulcus containing a row of punctures. *Scutellum* small. *Elytra* wider than prothorax at base, and about twice as long; subcylindric, shoulders rounded; punctate-striate, the intervals flat, impunctate on disc, convex at sides and apex, of even width, the 3rd with a seta near apical declivity, and one on the 5th about half-way, abdomen nitid, hind tarsi with 1st joint shorter than claw-joint. *Dimensions*: $8 \times 2\frac{1}{2}$ mm.

Hab.—Mt. Lofty Ranges, South Australia (Mr. R. J. Burton, A. H. Elston; South Australian and British Museums.)

Many specimens examined, in which I cannot see any sexual distinction. The nearly straight sides of prothorax, the feebly prominent anterior angles, the

definitely channelled pronotum, distinguish this species from all its congeners. The South Australian Museum examples were erroneously labelled *L. nitida*.

VAR. with femora red (in Coll. Elston).

Type in Coll. Carter.

LICINOMA TRUNCATA, n.sp.

Subcylindric, dark bronze, nitid; underside and legs castaneous, tarsi pale red, antennae opaque reddish brown. *Head* and pronotum rather closely but unevenly pitted with coarse punctures; epistomal suture straight and deeply impressed; antennae moniliform, 3rd joint a little longer than 4th, last joint much larger than 10th. *Prothorax* rather convex in the middle, in front; apex and base truncate (as seen from above), slightly longer than wide, clearly wider at apex than at base; sides moderately arched, with greatest width before the middle; margins irregular in outline (scarcely crenate), posterior angles obtuse and blunt, medial line rather widely but interruptedly impressed; some irregular foveate impressions on each side. *Scutellum* very small. *Elytra* convex, of about the same width as the prothorax, humeri not produced (as seen from above); crenate-sulcate, the punctures in sulci close and forming crenulations at the sides of intervals; these slightly flattened on centre and finely punctured, the 3rd and 5th showing setae (four on the 3rd and one on 5th). Prosternum and epipleurae coarsely punctate, the last segment of abdomen finely punctate, the rest smooth; post tarsi with first joint shorter than the claw joint; hind intercoxal process narrow and subtruncate. *Dimensions*: 10 × 4 mm.

Hab.—Victoria (Blackburn Coll. and DuBoulay).

Two specimens are in the South Australian Museum, of which one—wanting the abdomen—bears Blackburn's No. 4473 and the name "*ambigua* Bates" in his handwriting (besides Victoria)—a manifestly incorrect identification. The other, the type, is labelled "Victoria Du Boulay Aug. /89". This puzzling species is very like *Daedrosia*, but is without the toothed humeri; the prothorax has the sides entire, and rounded.

Type in South Australian Museum.

Table of *Licinoma*.

- 1—28 Elytra seriate punctate.
- 2—23 Elytral intervals of uniform width.
- 3—11 Elytral intervals flat.
- 4—8 Elytral intervals clearly punctate.
- 5 Prothorax transverse, sides well rounded . . . *nitida* Pasc.; *victoriae* Blackb.
- 6—8 Prothorax as long as wide, sides nearly straight.
- 7 Elytral intervals nodulose *nodulosa* Champ.
- 8 Elytral intervals not nodulose *tasmanica* Champ.
- 9—11 Elytral intervals impunctate.
- 10 Legs dark *nitidissima* Lea.
- 11 Legs testaceous *pallipes* Blackb.
- 12—23 Elytral intervals convex.
- 13—22 Prothorax transverse.
- 14—18 Prothorax widest at middle.
- 15 Prothorax sub-circular, highly polished (sublaevigate) . . . *cyclocollis* Cart.
- 16—18 Hind angles of prothorax clearly defined, disc clearly punctate.
- 17 Elytral intervals narrow and punctate . . . *elata* Pasc.; *viotacea* Macl.
- 18 Elytral intervals wide and striolate only *gilesi* Cart.
- 19—21 Prothorax widest before middle, not channelled in middle.

- 20 Hind angles rounded *monticola* Blackb.; *puncta-latera* Cart.
 21 Hind angles defined *apasioides*, n.sp.
 22 Prothorax widest before middle, channelled in middle *truncata*, n.sp.
 23 Prothorax longer than wide, clearly channelled *meridiana*, n.sp.
 24-29 Elytral intervals not of uniform width.†
 25-27 Elytral intervals flat.
 26 Elytral intervals impunctate and non-setose *sylvicola* Blackb.
 27 Elytral intervals punctate (3rd and 5th setose) *commoda* Pasc.
 28 Elytral intervals convex (sulci feebly punctate) *aerca*, n.sp.
 29 Elytra sulcate *angusticollis* Cart.

* Impunctate does not refer to the presence of occasional setae found in *pallipes* and others.

† The 3rd and 5th intervals sometimes considerably wider than the rest; only distinct and constant examples so included.

BRYCOPIA COMATA, n.sp.

Oval, black nitid, strongly pilose, antennae and tarsi red. *Head* and pronotum densely rugose, punctate and clothed with long upright hairs; eyes large and prominent, antennae unusually long and slender, 3rd joint cylindrical, nearly as long as 4th-5th combined, 4th-10th oval, 8th-10th increasing in size, 11th elongate-oval, twice as long as 10th. *Prothorax* truncate at base and apex, sides crenulate, angulately widened and widest at middle, thence obliquely narrowed each way, base and apex of about same width, all angles obtuse (anterior wider than posterior), disc without medial line or basal foveae. *Scutellum* triangular. *Elytra* wider than prothorax at base, and two and a-half times as long; punctate-striate, the striae wide, the punctures therein coarse, crenulating the sides of interstices; these convex, cross-wrinkled, each bearing a row of setae; underside strongly punctate. Legs hairy like the body. *Dimensions*: 6 × 3 (vix) mm.

Hab.—Murray River, South Australia (A. H. Elston).

A single specimen, sex uncertain, was generously given me by Mr. Elston, and shows a species distinct from all others by the combination of black colour, very hairy surface and legs, and subangulate-sided thorax.

Type in Coll. Carter.

BRYCOPIA GLOBICOLLIS, n.sp. (Text-fig. 11).

Ovate, brownish bronze, antennae and legs red, tarsi and palpi testaceous, whole upper surface rather thinly clothed with pale upright hairs. *Head* with a few scattered punctures, epistomal suture straight, deep and shortly produced backwards at its extremities; antennae stout, moniliform, joints 2, 3 and 4 subequal, thence gradually widening; 11th wider than and twice as long as 10th, ovate. *Prothorax* very convex, subcircular, truncate at apex and base, sides entire, widely and evenly rounded, widest at middle; anterior angles widely rounded, posterior widely obtuse; disc coarsely and unevenly punctured, with a few smooth rugosities; without foveae or medial line. *Scutellum* very small and round. *Elytra* ovate, two and a-half times longer than prothorax and at the shoulders slightly wider than it; humeri obliquely rounded; striae-punctate, the intervals flattish, but more convex at sides and apex, 3rd and 5th intervals wider than the rest, intervals unequally setose, the sutural interval smooth, 2nd with about two setae, 3rd and 5th with 6-8 setae, 4th nearly smooth; sides of prosternum and epipleurae sparsely and coarsely punctate, abdomen smooth. *Dimensions*: 6½ × 2½ mm.

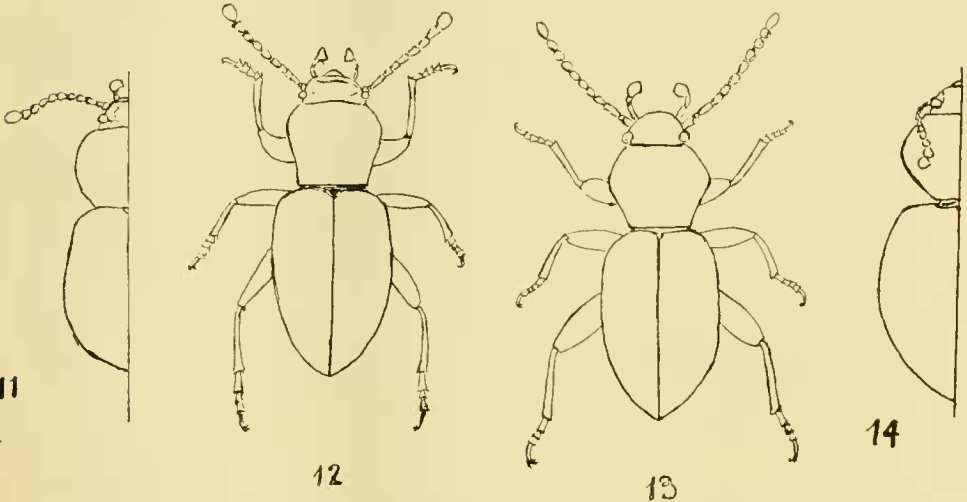
Hab.—Launceston, Tasmania (A. M. Lea).

Five specimens on a card sent by Mr. Lea show a species near *B. pilosella* Pasce. and *B. crenaticollis* Cart., but clearly separated from both by the almost circular prothorax, the sides of which are nowhere crenated; the antennae are also more robust than in either of these. The prothorax of *globoicollis* in the middle is nearly as wide as the elytra, whereas in the two species mentioned the prothorax is decidedly narrower than the elytra. The elytral intervals are less strongly punctured than in *B. pilosella* and are without the transverse wrinkles shown in Pascoe's species, which, moreover, has its intervals of equal width.

Types in South Australian Museum.

BRYCOPIA LEAI, n. sp. (Text-fig. 12).

Shortly ovate, rather flat, dark bronze, nitid, almost glabrous, antennae, palpi and legs pale red, tarsi testaceous. *Head* and pronotum thickly and strongly punctate, antennae with joints 4-8 shortly obconic, 9 and 10 sub-triangular, 11 ovoid. *Prothorax* sub-cordate, apex nearly straight (from above), base feebly bisinuate, anterior angles obtuse, sides arcuately widening to half-way, thence angulately narrowing in a concave curve to the acutely produced posterior angles; disc with medial line partly indicated by a short smooth space, a large shallow fovea on each side of this, a triangular impression near hind angle and a few



Text-fig. 11. *Brycopia globoicollis*.

Text-fig. 12. *B. leai*.

Text-fig. 13. *B. hexagona*.

Text-fig. 14. *B. obtusa*.

larger punctures interspersed amongst the others. *Scutellum* triangular and small. *Elytra* considerably wider than prothorax at base, and about twice as long, shoulders rounded, sides sub-parallel for the greater part; punctate striate, seriate punctures large, round and regular, not at all hidden in the fine striae, intervals quite flat and dotted with distinct but smaller punctures than those in striae, the 3rd and 5th each with about 5 large setae, a few fine pale hairs discernible; tanks of meso- and meta-sternum with sparse punctures, last segment of abdomen closely punctured, rest of underside smooth or nearly so. *Dimensions*: 7 × 3 mm.

Hab.—Launceston, Tasmania.

I took a single specimen in January, 1918, and from its close likeness in form—especially of prothorax—to *Dinoria picta* Pasc., I thought it was *Dinoria coelioides* Pasc. It is perhaps nearest to *B. femorata* Cart. in sculpture.

Type (unique) in Coll. Carter.

BRYCOPIA HEXAGONA, n.sp. (Text-fig. 13).

In form and colour near the former (*leai*), but clearly differentiated from it as follows:—*Head* and *pronotum* much less strongly punctured; antennae coarser and moniliform, joints 6-10 almost round. *Prothorax* with sides less rounded in front, the lateral angulation more strongly emphasized, posterior angles rectangular and less prominent, disc without the central foveae. *Elytra* with much larger seriate punctures, coarser and deeper striae—the intervals thus appearing from a side view, sub-convex—intervals almost smooth, except for the few setiferous punctures on the 3rd and 5th intervals. Underside smooth, except for the minute punctures of the apical segment of abdomen, and a row of large punctures on front part of epipleurae. *Dimensions*: $7\frac{1}{2} \times 3$ mm.

Hab.—Near summit of Mount Wellington, Hobart (A. M. Lea).

A specimen was given to me by Mr. Lea some time ago as *Dinoria* sp., from a short series in his collection.

Type in Coll. Carter.

BRYCOPIA OBTUSA, n.sp. (Text-fig. 14).

Widely oval, dark bronze, glabrous; antennae piceous, tarsi reddish. *Head* wide, coarsely punctate, clypeal suture deeply impressed, eyes large and prominent, antennae moniliform, not extending to base of prothorax, joint 3 little longer than 4, 8th-11th enlarging gradually, 11th sub-spherical. *Prothorax*, base and apex truncate, of nearly equal width, sides widely rounded, widest at middle, thence rather straightly narrowed to base; all angles widely obtuse, sides without obvious foliation, narrowly margined throughout, disc irregularly and rather finely punctate; medial line indicated at base only by a very short sulcus; two transverse foveate impressions, one on each side behind the middle. *Scutellum* small and bead-like. *Elytra* wider than prothorax at base, widely oval, humeri rounded, punctate-sulcate, seriate punctures large, set in deep, well-marked sulci; intervals a little convex—strongly so at sides and apex, 1st (sutural) narrow, rest of uniform width and impunctate. *Sternum* finely, epipleurae coarsely punctate, abdomen smooth; posterior tarsi with 1st joint longer than claw-joint. *Dimensions*: $7 \times 3\frac{1}{2}$ mm.

Hab.—Lizard Island, Queensland.

A specimen, sex uncertain, amongst some *Adelinae* sent from the British Museum, shows a species near *B. cheesmani* in its wide form, but differs widely in sculpture and shape of prothorax, especially in its sub-convex, smooth interstices of elytra. The pronotum is punctured somewhat as in *Adelium calosomoides* Kirby.

Type in British Museum.

Table of *Brycopia*.

- | | |
|-----|--|
| 1-9 | Sides of prothorax crenulate. |
| 2-6 | Upper surface pilose (not including occasional setae). |
| 3-5 | Colour bronze. |
| 4 | Sides of prothorax rounded (not sinuate behind). <i>pilosella</i> Pasc. |
| 5 | Sides of prothorax sinuate behind (pilose clothing sparse). <i>minuta</i> Lea. |
| 6 | Colour black, sides of prothorax angulately widened. <i>comata</i> , n.sp. |

- 7-9 Upper surface glabrous.
 8 Elytra with pale border—form flat. (*Dinoria*) *picta* Pasc.
 9 Elytra concolorous—form very convex. *crenaticollis* Cart.
 10-39 Sides of prothorax entire.
 11 Upper surface pilose. *globoicollis*, n.sp.
 12-39 Upper surface glabrous.
 13 Elytral intervals tuberculose. *tuberculifera* Champ.
 14-30 Elytral intervals flat.
 15-23 Sides of prothorax sinuate behind.
 16 3rd and 5th elytral intervals wider than rest *taylori* Cart.
 17-23 Elytral intervals of uniform width.
 18 Pronotum finely punctate. *dubia* Macl.
 19-23 Pronotum coarsely punctate.
 20-22 Each elytral interval with a single line of punctures.
 21 Form convex, seriate punctures small. *angulata* Cart.
 22 Form depressed, seriate punctures large. *hexagona*, n.sp.
 23 Elytral intervals thickly punctate. *leai*, n.sp.
 24-30 Sides of prothorax rounded (not sinuate behind).
 25 Form wide, pronotum coarsely punctate. *cheesmani* Cart.
 26-30 Form narrower, pronotum finely punctate.
 27 Form depressed, each elytron with 4 to 6 foveate impressions *femorata* Cart.
 28-30 Form convex, elytra not as in 27.
 29 Size larger, sides of prothorax nearly straight behind. (*Dinoria*) *coeltooides* Pasc.
 30 Size small, sides of prothorax evenly rounded. *minor* Cart.
 31-39 Elytral intervals convex.
 32-34 3rd and 5th intervals wider than rest.
 33 Form depressed, elytral intervals coarsely punctate . . . *punctatissima* Cart.
 34 Form convex, elytral intervals finely punctate. *globulosa* Cart.
 35-39 Elytral intervals of uniform width.
 36-38 Elytral intervals smooth.
 37 Sides of prothorax sinuate behind. *monilicornis* Macl.
 38 Sides of prothorax not sinuate behind. *obtusa*, n.sp.
 39 Elytral intervals punctate. *longipes* Macl.

ADELIUM POLITUM, n. sp.

Oval, black, nitid, glabrous; antennae and palpi fuscous, tarsi red. *Head* wide and, like the pronotum, mirror smooth, with a straight, deep, post-epistomal furrow, eyes very transverse, antennae with joint 3 little longer than 4; 4th-8th moniliform, 7th-11th successively widened, 9th-10th widely triangular, 11th larger than 10th, bluntly oval. *Prothorax* transverse, moderately convex, sub-truncate at apex and base, anterior angles rounded, sides evenly and rather widely rounded, posterior angles obtuse, sides not foliate, narrowly margined throughout; an elongate fovea near hind angle, another near lateral margin, otherwise without medial line or puncture. *Scutellum* widely triangular. *Elytra* wider than prothorax at base and nearly three times as long, oval, striate-punctate, the striae deep and clearly cut, the seriate punctures sub-obsolete—a few very small punctures barely visible in one or two striae near base; intervals smooth, flat on disc, convex on sides and apex. Tarsal joints short, the posterior tarsi with first joint about as long as the claw-joint. Underside smooth. *Dimensions*: 9 × 3½ mm.

Hab.—Mount Victoria, New South Wales (H. J. Carter).

I took this specimen in January; it is clearly of the *brevicornis regulare* type differing in its glassy smooth pronotum and its scarcely punctate elytra.

Type in Coll Carter.

SEIROTRANA MINOR, n. sp.

Ovate, bronze. apical joints of antennae opaque brown. *Head* rather coarsely rugose punctate, depressed on each side within the epistoma; antennal joints short, stout and sub-triangular, 3rd about $1\frac{1}{2}$ times longer than 4th, 11th ovate, and much larger than preceding. *Prothorax* $2 \times 3\frac{1}{2}$ mm., transverse and rather flat, arcuate-emarginate at apex, anterior angles acute, widest at middle, sides well rounded, sinuate behind, posterior angles rectangular, not dentate, base feebly sinuate (slightly advanced in middle) apical and lateral border narrow, the latter with slight tendency to crenulation; disc densely and finely rugose-punctate, medial line indicated by depression near base. *Scutellum* widely oval and punctate. *Elytra* considerably wider than prothorax at base and nearly thrice as long, ovate and moderately convex; striate-punctate, the striae containing rows of close regular punctures; intervals microscopically punctate, the 3rd, 5th, 7th, and 9th with shiny, raised, elongate crenulations, the other intervals on apical half with minute round nodules; sutural intervals flat; epipleurae and flanks of prosternum coarsely punctate, apical segment of abdomen finely punctate, other segments strigose. *Dimensions*: $9-10 \times 4-4\frac{1}{2}$ mm.

Hab.—Bunya Mountains, S. Queensland; VAR. A: Tenterfield, N.S.W. ($11 \times 4\frac{1}{2}$ mm.) (H. J. Carter.)

Three specimens taken near the foot of Mount Mowballan (Bunya Mountains) show the smallest species of the genus, structurally nearest to *S. proxima* Pasc. and *S. vicina* Cart., but with much finer elytral seriate punctures and more elongate and less strongly raised nodules. In Var. A. the lateral crenulation of prothorax is a little more, and the hind sinuation a little less marked than in the examples from Bunya Mts., but it is, I consider, conspecific with them.

Types in Coll. Carter.

ECTYCHE SEMI-BULLATA, n. sp.

Oblong-oval, subnitid black, legs piecous, antennae and tarsi castaneous, upper surface thinly clad with long upright black hair. *Head* and pronotum finely and densely rugose-punctate, epistomal suture areolate, antennae submoniliform, 3rd joint scarcely longer than 4th, successively increasing in size from the 6th onwards, 9th and 10th sub-spherical, 11th oval. *Prothorax* convex, transverse, subtruncate at apex, sides widely and evenly rounded, anterior angles obsolete, posterior sharply rectangular, preceded by an abrupt sinuation on sides and followed by a sub-obsolete sinuation at base. *Elytra* oval, humeri squarely rounded, at shoulders about as wide as prothorax at widest; apex bluntly rounded; striate-punctate; the round, closely-packed punctures placed in fine striae; the 3rd, 5th, and 7th intervals each with about 6 large tubercles and a few much smaller tubercles on the sutural interval. Epipleurae coarsely and closely, abdomen sparsely punctate, glabrous. *Dimensions*: $4.5-5 \times 2$ mm.

Hab.—Geraldton, Western Australia (W. D. Dodd).

Two specimens sent from the South Australian Museum show a species easily differentiated by its sculpture from its allies. The only other species having tuberculate elytra is *E. tuberculipennis* Bates, in which small tubercles are evenly placed on all the intervals, besides many other differences. I have specimens of the latter taken by Mr. H. W. Brown at Lake Austin, W.A. I have not been able to make out any sexual distinction.

Types in the South Australian Museum.

OMIOLIPUS PUNCTATO-SULCATUS, n. sp.

Moderately elongate, sub-nitid. Head, pronotum, underside and legs black, elytra dark blue (almost black), antennae and tarsi reddish brown. *Head* minutely punctate in front, smooth on vertex. *Pronotum* moderately convex, apex produced in middle, base truncate, sides but slightly rounded anteriorly and a little sinuate behind; lateral border visible from above; disc smooth. *Elytra* elongate-ovate, shoulders rather sharply rectangular and a little advanced; sides feebly enlarged behind middle, lateral border narrowly horizontal; punctate-sulcate with 8 well-marked sulci (besides the extreme lateral one), and without the usual indication of a short scutellary row of punctures; the intervals convex, punctures in sulci large, regular, crenulating the sides of intervals. Underside nearly smooth, some minute punctures on sternum and apical segments of abdomen.

Dimensions: 7-9 × 3-4 mm.

Hab.—Batchelor and Stapleton, N. Territory (Mr. G. F. Hill).

Three examples (1 ♂, 2 ♀) sent by Mr. Hill (of the Institute of Tropical Medicine, Townsville) show a species near *coeruleus* Cart. in form and sculpture, but in colour something between *O. gnesioides* Pasc. and *O. cyaneipennis* Champ., the elytra being of a blue-black shade sometimes seen in *gnesioides*, while the pronotum is smoother but less nitid than in that species. In most other species there is a short scutellary row of punctures (in *O. gnesioides* about 2 or 3), or a short sulcus as in *O. coeruleus*; the absence of this in *punctato-sulcatus* is a distinctive character.

Types in Coll. Carter.

Besides the synonymy noted above the following should be recorded:—

(i.) *Chalcopterus smaragdulus* F. = *C. cairnsi* Blackb.

(ii.) *C. cupreus* F. = *C. rusticus* Blackb.

(iii.) *C. setosus* Blackb. = *C. cupriventris* Cart. (var.)

(iv.) *Axyraon championi* Blackb. = *Catopherus corpulentus* Cart.

(v.) *Sirrhias limbatus* Champ. = *Notolea limbata* Cart.

Of *C. cupreus* F. (a long-standing mystery), Mr. Blair writes "is brassy becoming purple and finely narrowly bluish behind, the latter" [*rusticus*] "purple becoming bluish behind. The sculpture seems to be identical."

Of (iii.) Mr. Blair writes, "I think—are colour forms of the same." Apparently the metallic underside is not constant.

In (iv.) and (v.) the genera *Catopherus* and *Notolea* must be sunk. In the former case I failed to diagnose Blackburn's species; in the latter I had not seen Mr. Champion's paper dealing with this very unusual *Lagriid*.